

REMARKS

Claims 1-8, 22, 23, 25-28 and 64-69 were pending as of the date of the Office Action. Claims 22, 23 and 25-28 have been withdrawn from consideration.

Claims 1, 3 and 8 have been amended. No new matter has been added.

Rejections under 35 U.S.C. § 102(e)

Claims 1, 3-8 and 65-69 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,138,144 (hereinafter “DeSimone”). Based on the Examiner’s response to the applicants’ arguments in reply to the previous Office Action, it is believed that there is a misunderstanding regarding the nature of the present invention. The applicants have amended independent claims 1 and 8 to more clearly recite the present invention and offer the following discussion to aid the Examiner in understanding the invention.

As described in the “Layered Networks” section of the present application, a computer network “may be built in layers” (Spec., p. 11, ll. 20-25). Higher layers of the network, such as the transport and presentation layers may support the networking model of a “session,” and each of those layers may therefore have a respective “session topology” (Spec., pp. 11-12).

In such a layered network, one embodiment of the present invention provides an audio network layer that is built “on top of” a session/transport layer. The session/transport layer may have one of a variety of data session topologies, such as a “peer-to-peer” topology (where each node in the network can communicate directly with each other node) or a “client-server” topology (where each node can communicate directly only with a host through which all communications between nodes must pass). The audio network layer may also have one of a variety of session topologies, such as a peer-to-peer topology or one of several different client-server topologies, including a “forwarding” topology, a “mixing” topology or an “echo” topology. (*See*, Spec., pp. 14-17).

As further described in the section of the specification titled “Using an Audio Session Topology with a Data Session Topology,” the “audio layer may provide any (or all) of the audio session topologies [mentioned above]... and may then use a session/transport layer to send the audio data to the other nodes in the audio session” (Spec., p. 17, ll. 25-28). One

feature of the present invention is that “the session/transport layer may have a session topology that differs from, and is independent of, the audio layer (Spec., p. 18, ll. 3-6). That is, an audio layer having any of the session topologies mentioned above may be built on top of a session/transport layer that has a different session topology. It is this feature of the invention to which independent claims 1 and 8 are directed.

By way of further illustration, Figure 11 of the present application shows an exemplary situation in which an audio layer has a client/server session topology, but the underlying session/transport layer has a peer-to-peer session topology. Communication within the transport/session layer is shown by solid lines, and communication within the audio layer session is shown by dashed lines. The audio session includes nodes 1104, 1106, and 1108, of which node 1106 is the host. The transport session includes nodes 1102, 1104, 1106 and 1108, of which node 1102 is the host. Since the transport session has a peer-to-peer topology, each of nodes 1102, 1104, 1106, and 1108 can communicate directly with each other. However, the audio session has a client/server topology, and thus nodes 1104 and 1108 can communicate directly with audio session host node 1106, but cannot communicate directly with each other. Nodes 1104 and 1108 can, however, communicate indirectly with each other through host node 1106. (*See*, Spec., pp. 18, ll. 10-28).

With further reference to Fig. 11, suppose that node 1104 (“A”) sends audio data to node 1108 (“B”) in the audio session topology. Since the audio session is client/server with node 1106 as the host, node 1104 can send directly only to node 1106 within the audio session. As noted above, the underlying transport session is a peer-to-peer session which does permit node 1104 to communicate directly with node 1108; however, from the perspective of the audio layer, node 1108 is not directly addressable from node 1104. Thus, the audio layer provides the audio data to the transport layer with instructions to deliver the data to node 1106. The data may be packaged with a header that indicates that node 1106 is to forward the data to node 1108. When the transport layer receives the data, it simply delivers the data to node 1106, as it has been requested to do by the audio layer. And, the transport layer’s delivery of the data from node 1104 to 1106 is performed in accordance with the transport layer’s peer-to-peer topology. It is this process to which the steps of independent claims 1 and 8 are directed.

Specifically, claim 1 (as amended) recites “[a] method of sending first data from a first device to a destination device” via a network that has a “first layer ... having a first session topology which defines a first set of one or more of said second devices to which data may be *directly addressed* from said first device” and a “second layer having a second session topology which defines a second set of one or more of said second devices to which data may be *directly addressed* from said first device.” As further recited, “said second set of devices to which data may be directly addressed ... in said second layer [is] different from said first set of devices to which data may be directly addressed ... in said first layer.” Data is then transmitted from the first device to the destination device by:

- creating a first data package which contains: (a) said first data;
and (b) a header;
- addressing said first data package to said destination device *in accordance with said second session topology*;
- sending said first data package to said destination device
according to said first session topology.

(emphasis added). Independent claim 8 recites essentially the same features. The applicants respectfully submit that DeSimone does not teach these recited features.

DeSimone describes a system for participating in conferences over the Internet. Terminals that want to receive conference information (e.g., a video feed from a live conference) are assigned a particular port number. The originator of the conference material contacts a server called the “MARS” server to find out to whom to “unicast” the video feed. As described at col. 5, line 63 et seq., each participant in the conference is assigned an IP address, and the MARS server informs the originator which ports it should unicast the material to. But there is no discussion of multiple “layers” of a network, each having a different “*session topology*,” nor is there any discussion of the specific data transmission steps recited in claims 1 and 8. Because these features are not found in DeSimone, the applicants respectfully submit that DeSimone does not anticipate independent claims 1 and 8. Inasmuch as the remaining claims depend, either directly or indirectly, they too are not anticipated by DeSimone for the same reasons. Reconsideration of the Section 102(e) rejection of claims 1, 3-8 and 65-69 is therefore respectfully requested.

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PATENT

Rejections under 35 U.S.C. § 103(a)

Claims 2 and 64 stand rejected under 35 U.S.C. 103(a) as being unpatentable over DeSimone in view of “Applicant's admitted prior art.” However, as discussed above, DeSimone fails to teach or suggest all of the features of independent claims 1 and 8, from which claims 2 and 64 respectively depend. Thus, DeSimone does not provide the base teachings necessary to support the Section 103(a) rejection. Reconsideration of the Section 103(a) rejection of claims 2 and 64 is therefore also respectfully requested.

CONCLUSION

For all the foregoing reasons, the applicants respectfully submit that the present application is now in condition for allowance.

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